Memorandum

U.S. Departmentof Transportation**Federal Transit Administration**

Subject: Review of Information Submitted on Proposed Light Rail Realignment at the Honolulu National Airport for the Honolulu High-Capacity Transit Corridor Project

Date: April 14, 2010

From: Leslie Rogers
Regional Administrator
Region 9 - San Fransico

Reply to Attn. of:

To: Honolulu High-Capacity Transit Corridor Project NEPA Project File

Introduction and Background

Federal Transit Administration (FTA) and the City and County of Honolulu Department of Transportation Services (City) published a draft environmental impact statement (EIS) in November 2008 for the Honolulu High-Capacity Transit Corridor Project. In January 2009 the FTA and the City identified the Airport Alternative as the preferred alternative for the development of a final EIS when it passed Honolulu City Council Resolution 08-261. The Airport Alternative would be a fixed guideway system that uses steel-wheel-on-steel rail technology on an elevated or in exclusive right-of-way.

This preferred alignment in the vicinity of Honolulu International Airport (HNL) would enter airport property on the northwest section of HNL, would continue east and cross onto Aolele Street where it would run along the Mauka side of the road, and continue through HNL property until it reaches Lagoon Drive.

Over the past several months since publication of the draft EIS and through the development of a final EIS, it came to FTA and the City's attention in a review by the Project Management Oversight Contractor that the preferred alternative crosses the center HNL runway protection zone for runways 4L/22R and 4R/22L[1]. As a result of the crossing of the runway protection zone the City, FTA, Federal Aviation Administration (FAA), and the Hawaii Department of Transportation – Airports Division (HDOT) have been in discussions over the best way to address the segment of the preferred alternative that crosses the runway protection zone. The FAA became a cooperating agency to the EIS in December 2009. Discussions on the preferred rail alignment have included an interagency meeting between headquarters and regional FAA and FTA staff on XX date and a site visit and discussion by headquarter and regional FTA and FAA staff on XX date.

The City initially proposed shifting Runway 4R/22Lto the south so that the preferred alternative would no longer be in the runway protection zone. The City has since proposed to shift the preferred

[1] FAA Advisory Circular (AC) 150/5300-13, *Airport Design*, Paragraph 212, indicates the runway protection zone's function is to enhance the protection of people and property on the ground. The runway protection zone is trapezoidal in shape and centered about the extended runway centerline. AC 150/5300-13 provides the required dimensions for an runway protection zone, which is a based on the type of aircraft using the runway and the approach visibility minimum associated with that runway end. The runway protection zone for the Runway 22L and 22R ends is 1700 feet long and the rail line would cross through these runway protection zones.

alternative alignment from Aolele Street to Ualena Street to avoid the runway protection zone and potentially significant impacts from their initial mitigation.

The purpose of this memo is to evaluate information derived from these discussions, site visits, and subsequent analysis to determine whether a supplemental environmental assessment is needed for the Honolulu High-Capacity Transit Corridor Project.

City's Runway Shift Proposal

To help mitigate the impact of the preferred alternative rail alignment on the runway protection zone, the City proposed in [month/year] to shift Runway 4R/22L and the associated taxiway approximately 460 feet to the south, and Runway 22R be lowered, use of declared distances, to indicate use of this runway by slower aircraft in Aircraft Approach Category A and B. This proposed mitigation could allow the preferred alignment to remain outside of the central portion of the runway protection zone.

In response, FAA verbally shared some of their concerns with the City and FTA and prepared an evaluation of Honolulu International Airport Rail Transit Alignment Options and transmitted it to the FTA on April 7, 2010. Generally, the FAA does not support use of declared distances as a means to mitigate adverse impacts to runways that currently meet design standards caused by the introduction of a new penetration of the runway safety area or runway protection zone. Declared distances are used at existing constrained airports where it is otherwise impracticable to meet standards by other means and not when new obstructions are proposed to be introduced into the runway protection zones.

Even though the FAA does not support the use of declared distances in this type of situation, in their evaluation they presented potential impacts based on the City's proposed mitigation of shifting the runway and use of declared distances. These potential impacts include relocating expensive visual and electronic navigational equipment, critical power and communication cables, runway lights, and the development of new approach and departure procedures.

During construction, Runway 4R would be out of commission for an extended period of time. This would affect the airport's ability to maintain the safe flow of traffic and would remove from service one of the two runways at the airport with Instrument Landing System needed when visual landings cannot be conducted. Runway 4R is also one of two runways that the U.S. Air Force maintains a Barrier Arresting Kit-12/14 system which is used for emergency recovery of high performance military aircraft. During construction, the U.S. Air Force would have to rely on the same runway that all arrivals and departures into HNL and would result in substantial delays. The U.S. Air Force would also be without a backup arresting barrier system.

Runway 4R also serves as the main arrival runway at HNL during night-time hours in order to reduce adverse noise impacts to noise sensitive land uses to the west of the airport. Shifting the traffic to other runways at night would increase the number of residential communities exposed to adverse noise impacts and would add to delays in arrivals at the airport.

Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR) extend approximately 2,400 feet beyond the end of Runway 4R. Shifting the runway south toward the lagoon would mean that new runway light stations would be required in the environmentally sensitive lagoon. This area is designated by the State of Hawaii as conservation land and any use will need a conservation use permit, and potential U.S. Army Corps permit and Clean Water Act permit.

The use of Conservation lands are regulated by the State of Hawaii, Board of Land and Natural Resources. In addition, coordination with the U.S. Fish and Wildlife Service regarding any federally listed threatened and endangered species and any Coastal Zone development issues would need to be addressed.

Substantial further analysis would be required to determine whether any of these changes are feasible at HNL and what the domino effect of potentially significant environmental and financial impacts would be. FAA and HDOT estimated that the cost of airport-related costs from shifting the runway and use of declared distances could range between $102.2 million and $127.8 million and would require 2-3 years of additional safety and environmental analysis.

Proposed Ualena Street Realignment

Based on the discussions among the agencies and prior to the submission of FAA's evaluation document, the City sent a letter on April 5, 2010 to FTA's Administrator Peter Rogoff proposing a shift in alignment that would avoid encroachment into the central portion of the runway protection zone for Runway 4R/22L. This proposed alignment would still primarily be on Aolele Street and would shift to Ualena Street approximately 2,000 feet from Lagoon Drive.

Prior to sending the letter to Administrator Rogoff, the City sent supporting environmental analysis on their proposed alignment shift to FTA for review on March 31, 2010. The initial package of information included:

- Preliminary row-of-way plan,
- Plan and profile drawings,
- Visual simulation from Keehi Lagoon Beach Park,
- Section 106 Area of Potential Effect (APE) map showing potential National Register of Historic Places (NRHP) property eligibility,
- Determinations of eligibility forms for new properties in the APE,
- Spreadsheet comparing realignment options to the preferred alternative, and
- A brief narrative description of what changes to impact analyses would be with the alignment shift.

FTA reviewed this information and requested additional analysis from the City on efforts to minimize impacts on property acquisitions, privately owned business, historic properties, and parks, mitigation required by HDOT for impacts at HNL, and expansion of information presented on potential impacts from proposed alternative alignment. The City responded to FTA's request for additional information on April 6, 2010.

FTA also sent the initial package of information to the independent Project Management Oversight Contractor to identify whether alignment design changes could further minimize impacts. [Ray do you want to fill this in?]

In evaluation of the total package of information submitted by the City on the realignment, analysis provided by the Project Management Oversight Contractor, analysis provided by FAA, the draft EIS, and technical reports FTA identified the following changes in impacts with the Ualena realignment than the Aeole Street alignment:

- Avoidance of the central portion of the runway protection zone for Runway 22L/4R,
- Avoidance of adverse noise impacts on residential areas from shifting Runway 22L/4R south,
- Avoidance of potential impacts on wetlands, threatened and endangered species, and conservation areas associated with the lagoon from shifting Runway 22L/4R south,
- Minimization of the use of Ke'ehi Lagoon Beach Park by the proposed project,
- Acquisition of an additional four full properties and nine partial acquisitions,
- Relocation of one business that is not expected to result in long-term adverse effects on property tax revenues,
- Acquisition of one parcel with an operating gasoline stations that would require the completion of a Phase 1 assessment for hazardous materials, and
- Addition of new construction impacts along Ualena Street.

Since the publication of the draft EIS, FTA, the City, the Hawaii State Historic Preservation Office, the Advisory Council on Historic Preservation and numerous other consulting parties have been involved consultation on the APE, determinations of effect on historic properties, and resolution of adverse effect for the entire project. This consultation process resulted in a change of adverse effect determinations from the preliminary determinations presented in the draft EIS. In the vicinity of the HNL proposed realignment, FTA changed the preliminary determination of No Adverse Effect to a determination of Adverse Effect after consultation with consulting parties for the Hawaii Employers Council Building. With the proposed realignment shift FTA would still make a determination of Adverse Effect due to visual impacts on the historic property. [Not certain whether we would make a new determination].

Properties that would be acquired as a result of the realignment shift were included in the original APE and determined to not be eligible for the NRHP by FTA. Although FTA and the City would still need to consult with the SHPO, ACHP, and other consulting parties on the revised APE and determinations of eligibility, preliminary review of the new properties in the APE indicate that they likely do not meet NRHP eligibility.

Conclusions

In review of all the information mentioned above, FTA determined that there were not new and significant impacts with the proposed Ualena Street realignment than what FTA presented in the draft EIS. The information and impacts associated with the Ualena Street realignment will be incorporated in the final EIS and FTA will invite comment in the final environmental impact statement on these impacts.